PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Improvements in or relating to Mounting Means for Gramophone Record Playing Units

We, THE GARRARD ENGINEERING AND MANUFACTURING COMPANY LIMITED, a British Company, of Newcastle Street, Swindon, Wiltshire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to mounting means for gramophone record playing units of the type providing a suspension of the unit at three or more spaced points whereby the unit is free from exterior vibration.

An object of the present invention is to provide an anti-vibration mounting for gramophone record playing units which is simple and cheap to manufacture and which can be readily installed and permits the baseplate of the unit to be quickly and easily mounted and de-mounted.

The invention consists in anti-vibration mounting means for a gramophone record playing unit comprising each a post adapted to be rigidly mounted in a vertically upstanding position on a mounting board or other surface and a suspension grommet of resilient material, such as rubber, of annular cross section adapted to engage the post in a coaxial relationship at or towards the upper end of the post and depend therefrom in a spaced, skirtwise encircling disposition about the post, means being provided for securing the baseboard of the record player unit to the depending skirt portion of the grommet at a point spaced below its point of engagement with the post.

The invention further consists in anti-vibration mounting means for a gramophone record playing unit, according to the preceding paragraph, wherein the post at or towards its upper end is flanged or has a portion of reduced diameter, or both, to provide an upwardly facing annular shoulder and the grommet has an end wall centrally apertured to provide an annular interior face corresponding to the annular shoulder on the post such that when the grommet is applied over the upper end of the post the interior annular face on the grommet rests on the annular shoulder on the post to provide the interengagement means therebetween. If required a capping screw can be provided on the upper end of the post, the head of which overlies the end of the grommet to prevent its displacement from its position on the post shoulder.

Below the shoulder on the post the internal diameter of the annular section of the grommet is greater than the diameter of the post to permit anti-vibrational sway of the grommet skirt relative to the post, the skirt of the grommet, beween the point of securement of the unit base board and its engagement with the upper end of the post, being in tension.

According to one convenient means of securing the unit baseboard to the grommet, the baseboard is provided with a circular aperture disposed to register coaxially with the mounting post and the grommet is formed with an annular groove in a place normal to its axis into which the edge of the baseboard defining the mounting aperture fits, after the end of the grommet has been pressed through the aperture.

The mounting post is conveniently mounted in the mounting board or other means by terminating in a threaded portion of reduced diameter so that it can be passed through a suitable hole in the mounting board and secured there by a nut and washer on the underside.

The accompanying drawing represents a section taken through anti-vibration mounting means according to the present invention showing also fragments of the baseplate of the gramophone record playing unit and of a mounting board therefor.

In carrying the invention into effect according to one convenient made by way of example, as shown in the accompanying

drawing, anti-vibration mounting means comprises a mounting post 1 and a suspension grommet 2, the post 1 being secured to a suitable mounting board 3 and the baseplate 4 of a gramophone record playing unit being mounted on the grommet 2.

The post 1 has a threaded lower portion 5 which passes through a suitable hole in the mounting board 3 and is secured by a nut 6 on the underside, suitable washers 7 being located on either side of the hole. Towards its upper end, the post 1 is provided with an upwardly facing annular shoulder 8 which engages the grommet 2 in the manner hereinafter described. A capping screw 9 is provided at the upper end of the post 1 which overlies the end of the grommet 2 to prevent its displacement from its position on the post shoulder 8. The suspension grommet 2 is formed of a resilient material, such as rubber, and is of annular cross section having an end wall 10 centrally apertured to provide an annular interior face engaging and resting on the annular shoulder 8 of the post 1 in coaxial relationship therewith such that the grommet 2 is dependent from the upper end of the post in a spaced, skirtwise encircling disposition about the post 1.

The baseboard 4 of the gramophone record playing unit is provided with a circular aperture disposed to register coaxially with the post 1 and the grommet 2 is formed with an annular groove 11 into which the edge of the baseboard 4 defining the mounting aperture fits, after the end of the grommet 2 has been pressed through the aperture to assume the position shown in the accompanying drawing.

Below the shoulder 8 on the post 1, the internal diameter of the annular section of the grommet 2 is greater than the diameter of the post 1 to permit anti-vibrational sway of the grommet skirt 12 relative to the post 1, the skirt 12 of the grommet 2, between the annular groove 11 (i.e. the point of securement of the unit baseboard 4), and the point at which the grommet 2 engages the post 1, being in tension.

Similar mounting means are provided in this fashion at three or more points spaced over the baseplate of the gramophone record playing unit to hold the baseplate spaced from the mounting board without transmitting vibrations to it.

WHAT WE CLAIM IS:—

1. Anti-vibration mounting means for a gramophone record playing unit comprising each a post adapted to be rigidly mounted in a vertically upstanding position on a mounting board or other surface and a suspension grommet of resilient material, such as rubber, of annular cross section adapted to engage the post in a coaxial relationship at or towards the upper end of the post and depend therefrom in a spaced, skirtwise encircling disposition about the post, means being provided for securing the baseboard of the record player unit to the depending skirt portion of the grommet at a point spaced below its point of engagement with the post.

2. Anti-vibration mounting means for a gramophone record playing unit as claimed in Claim 1, wherein the post at or towards its upper end is flanged or has a portion of reduced diameter, or both, to provide an upwardly facing annular shoulder and the grommet has an end wall centrally apertured to provide an annular interior face corresponding to the annular shoulder on the post such that when the grommet is applied over the upper end of the post the interior annular face on the grommet rests on the annular shoulder on the post to provide the interengagement means therebetween.

3. Anti-vibration mounting means for a gramophone record playing unit as claimed in Claim 2, wherein a capping screw or the like is provided on the upper end of the post, the head of which overlies the end of the grommet to prevent its displacement from its position on the post shoulder.

4. Anti-vibration mounting means for a gramophone record playing unit as claimed in Claim 2 or 3, wherein the internal diameter of the annular section of the grommet below the shoulder on the post is greater than the diameter of the post to permit anti-vibrational sway of the grommet skirt relative to the post, the skirt of the grommet, between the point of securement of the unit baseboard and its engagement with the upper end of the post, being in tension.

5. Anti-vibration mounting means for a gramophone record playing unit as claimed in any of the preceding claims, wherein the grommet is formed with an annular groove in a plane normal to its axis, said groove being adapted to receive the edge of the baseboard defining a mounting aperture in the baseboard when the end of the grommet has been pressed through the aperture.

6. Anti-vibration mounting means for a gramophone record playing unit as claimed in any of the preceding claims, wherein the mounting post terminates in a threaded portion of reduced diameter so that it can be passed through a suitable hole in a mounting board or other means and secured there by a nut on the underside.

7. Anti-vibration mounting means substantially as described with reference to the accompanying drawings.

MARKS & CLERK.

PROVISIONAL SPECIFICATION

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The invention consists in anti-vibration mounting means for a gramophone record playing unit comprising each a post adapted to be rigidly mounted in a vertically upstanding position of a mounting board or other surface and a suspension grommet of resilient material, such as rubber, of annular cross section adapted to engage the post in a coaxial relationship at or towards the upper end of the post and depend therefrom in a spaced, skirtwise encircling disposition about the post, means being provided for securing the backboard of the record player unit to the depending skirt portion of the grommet at a point spaced below its point of engagement with the post.

The invention further consists in anti-vibration mounting means for a gramophone record playing unit, according to the preceding paragraph, wherein the post at or towards its upper end is flanged or has a portion of reduced diameter, or both, to provide an upwardly facing annular shoulder and the grommet has an end wall centrally apertured to provide an annular interior face corresponding to the annular shoulder on the post such that when the grommet is applied over the upper end of the post the interior annular face on the grommet rests on the annular shoulder on the post to provide the interengagement means therebetween. If required a capping screw can be provided in the upper end of the post, the head of which overlies the end of the grommet to prevent its displacement from its position on the post shoulder.

Below the shoulder on the post the internal diameter of the annular section of the grommet is greater than the diameter of the post to permit anti-vibrational sway of the grommet skirt relative to the post, the skirt of the grommet, between the point of securement of the unit base board and its engagement with the upper end of the post, being in tension.

According to one convenient means of securing the unit baseboard to the grommet, the baseboard is provided with a circular aperture disposed to register coaxially with the mounting post and the grommet is formed with an annular groove in a plane normal to its axis into which the edge of the baseboard defining the mounting aperture fits, after the end of the grommet has been pressed through the aperture.

The mounting post is conveniently mounted in the mounting board or other means by terminating in a threaded portion of reduced diameter so that it can be passed through a suitable hole in the mounting board and secured there by a mat and washer on the underside.

MARKS & CLERK.

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1 SHEET

COMPLETE SPECIFICATION

This drawing is a reproduction of the Original on a reduced scale.